

CLAIMS

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1. Apparatus including a receiver/decoder for use in reception of a television or radio programme or a data file, the apparatus including means for interacting with a user's credit or bank card to read credit or bank information carried by the card, and,  
5 separate from said means, a further interacting means for interacting with a user's card to read information carried by the card.

2. Apparatus according to Claim 1, arranged to interact with a credit or bank card incorporating a microprocessor.

3. Apparatus according to Claim 2 arranged to provide information to the  
10 microprocessor.

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4. Apparatus according to <sup>Claim 1</sup> ~~any preceding claim~~, further including means for transmitting to a remote centre a debit instruction, based on the information carried by the credit or bank card.

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5. Apparatus according to <sup>Claim 1</sup> ~~any preceding claim~~ further including means arranged to receive authorization information from a remote centre.  
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6. Apparatus according to Claim 5 arranged to control decoding or descrambling of the programme or file in dependence on the authorization information.

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7. Apparatus according to <sup>Claim 1</sup> ~~any preceding claim~~, further including means for storing reception credit information representing credits available for purchase of  
20 products in memory means of the user's card.

8. Apparatus according to Claim 4 arranged to send debit instructions to the remote centre and to modify the reception credit information stored in the user's card by increasing the number of credits stored on the user's card in response to payment by means of the bank or credit card.

9. Apparatus according to Claim 8 arranged to effect purchase of credits sufficient to allow a plurality of products to be purchased for each transaction in which a debit instruction is sent to the remote centre.

10. Apparatus according to ~~any preceding claim~~ <sup>Claim 1</sup> further including means for processing data representative of the user's bank or credit card together with received data representative of an item or service offered, and for transmitting an order request to a remote centre for processing.

11. Apparatus according to Claim 10 including means for inputting a request from a user to purchase an item offered.

12. Apparatus according to ~~any preceding claim~~ <sup>Claim 1</sup> further including means for receiving a PIN number.

13. Apparatus according to ~~any preceding claim~~ <sup>Claim 1</sup> in the form of a set-top-box.

14. Apparatus according to ~~any preceding claim~~ <sup>Claim 1</sup> adapted for reception of satellite transmitted programmes or files, preferably digital satellite programmes or files.

15. A receiver/decoder for use in a digital satellite television system including a decoder, means to accommodate a credit or bank card carrying a microprocessor, means to interact with said microprocessor when the credit or bank card is inserted into an operative position in said receiver/decoder in order to enable data carried by said credit or bank card to be read and data to be input to the microprocessor carried by said credit or bank card and means to accommodate a smartcard whereby insertion of the smartcard by the end user into the receiver/decoder enables the smartcard to interact with means in said receiver/decoder whereby a product selected by the end user may be delivered to said receiver/decoder and from there to a television set or personal computer to which the receiver/decoder is adapted to be connected.

16. A digital satellite radio or television system having a plurality of end user

terminations each of which includes a receiver/decoder as claimed in Claim 15.

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*CP* 17. A method of providing an order for an item or service comprising, at a receiver/decoder at which information concerning the item or service is received, reading information from a bank or credit card, generating an order request containing information identifying the item or service and information representative of the bank or credit card information, verifying the remote centre and subsequently transmitting order information to the remote centre for processing.

10 18. A method according to Claim 17, wherein the step of verifying the remote centre comprises the steps of passing a random number to the remote centre, receiving the random number in an encrypted form from the remote centre, and decrypting the encrypted random number to verify the remote centre.

15 19. A method according to Claim 17 ~~or 18~~, further comprising, at the remote centre, processing the order information and determining whether to authorise the transaction on the basis of the bank or credit card information.

20 *Claim 1*  
20. Apparatus according to ~~any of Claims 1 to 14~~, further comprising a remote controller for transmitting a user's Personal Identification (PIN) Number to the receiver/decoder.

21. Apparatus according to Claim 20, wherein the remote controller includes security means for rendering the transmission secure.

20 22. A remote controller for an item of equipment having means by which a user's Personal Identification (PIN) Number may be transmitted to the item of equipment, the controller incorporating security means for rendering said transmission secure.

25 *Sub*  
*CP* 23. A remote controller for an item of equipment, comprising:  
means defining a body for said controller;  
means for transmitting a user's Personal Identification (PIN) Number to said

item of equipment; and  
security means for rendering said transmission secure.

a 24. A remote controller as claimed in ~~any of Claims 22 to 23~~ <sup>Claim 22</sup> in which the transmission means comprises means for generating an infra-red beam.

a 5 25. A remote controller as claimed in ~~any of Claims 22 to 24~~ <sup>Claim 22</sup> in which said security means comprises means for encrypting the PIN number.

26. A remote controller as claimed in Claim 25 in which said encryption means comprises means for combining the PIN number with a random number.

Sub 10 27. A remote controller as claimed in Claim 26 further comprising means for enabling the user to input the random number.

28. A remote controller as claimed in Claim 27 in which said input means comprises at least one key for input of the random number and a further key, the controller being arranged such that the PIN number is only transmitted via the transmitting means on depression of the further key.

a 15 Sub 10 29. A remote controller as claimed in ~~any one of Claims 25 to 28~~ <sup>Claim 25</sup> in which said encryption means comprises means for storing the random number in the controller.

a 20 30. A remote controller as claimed in ~~any of Claims 22 to 29~~ <sup>Claim 22</sup> in which said security means comprises means for generating a number characteristic of the individual controller, for transmission via said transmitting means to the item of equipment.

c 31. A remote controller as claimed in ~~any one of Claims 25 to 29~~ <sup>Claim 25</sup> in which said encryption means includes means for generating a number characteristic of the individual remote controller and means for combining said characteristic number with said random number and said PIN number.

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32. A remote controller as claimed in ~~any one of Claims 25 to 31~~ <sup>Claim 25</sup> in which said encryption means comprises means for receiving a random number from said item of equipment and means for combining that random number with the user's PIN number for transmission via the transmitting means to said item.

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5 33. A combination comprising a remote controller as claimed in ~~any of Claims 22 to 32~~ <sup>Claim 22</sup> and said item of equipment, said item of equipment having means for receiving a user's PIN number.

10 34. A combination as claimed in Claim 33 in which said item of equipment comprises means for generating a random number and means for outputting said random number to a display unit.

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35. A combination as claimed in Claim 33 ~~or 34~~ in which said item of equipment comprises means for generating a random number and means for transmitting said random number to said remote controller.

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15 36. A combination as claimed in any of Claims 33 to 35, wherein said item of equipment comprises apparatus as claimed in any of Claims 1 to 14.

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37. A digital television system, comprising an item of television equipment, said item having means for receiving a user's PIN number, and a remote controller as claimed in ~~any one of Claims 22 to 32~~ <sup>Claim 22</sup>.

20 38. A digital television system, comprising:  
an item of television equipment, said item having means for receiving a PIN number; and  
a remote controller, said remote controller comprising:  
means defining a body for said controller;  
means for transmitting a user's PIN number to said item of equipment; and  
25 security means for rendering said transmission secure.

39. A method of entering a PIN number into a television system comprising  
employing a remote controller as claimed in ~~any one of Claims 22 to 32~~ <sup>claim 22</sup> to transmit  
said PIN number to a television.

40. A receiver/decoder substantially as hereinbefore described with reference to  
and as shown in the accompanying drawings.

41. A digital satellite television system substantially as hereinbefore described with  
reference to and as shown in the accompanying drawings.

42. A remote controller substantially as hereinbefore described with reference to  
and as shown in Figures 7, 10 and 11 to 15 of the accompanying drawings.

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